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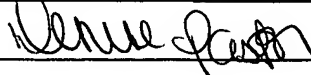
PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

HOE-790

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on March 20, 2009

Signature 

Typed or printed name Denise Pastor

Application Number

10/731,284

Filed

December 9, 2003

First Named Inventor

Nesper, et al.

Art Unit

3775

Examiner

R. Shaffer

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒

attorney or agent of record.
Registration number 37,886

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____


Signature

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Typed or printed name

203-459-0200

Telephone number

March 20, 2009

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒

*Total of 1 forms are submitted.

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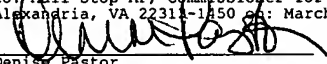


PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
Nesper, et al.) Examiner: R. Shaffer
)
Serial No.: 10/731,284) Art Unit: 3775
)
Filed: December 9, 2003)
)
For: **IMPLANT FOR FIXING ADJACENT BONE PLATES**

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Denise Pastor

SUMMARY OF ARGUMENTS
FOR PRE-APPEAL BRIEF REVIEW CONFERENCE

Dear Sir:

This Summary of Arguments is being filed simultaneously with a Notice of Appeal and a Pre-Appeal Brief Request for Review in connection with the final Office Action mailed on December 23, 2008 and the Advisory Action mailed on March 11, 2009.

Background

Claims 1, 3, 5-18, 22, and 24-33 are pending. Claims 25, 26 and 29-33 are withdrawn.

Applicants filed a Response to the Advisory Action on February 19, 2009 (mailed February 17, 2009) which is incorporated herein and made a part hereof by reference ("Applicants' Response"). The Examiner mailed an Advisory Action maintaining the rejections set forth in the final Office Action on March 11, 2009.

Discussion of Rejection Based on Lerch DE in View of Lerch US

Independent claim 1 is rejected as being unpatentable over Lerch DE in view of Lerch US. Lerch DE (DE 199 52 359) has a U.S. counterpart, US 2002/0156475. In the discussion below, references to Lerch DE are made to corresponding portions of the U.S. counterpart of Lerch. Lerch DE was discussed in detail in Applicants' Response and in Applicants' Amendment filed on April 7,

2008, which is incorporated herein and made a part hereof by reference.

The Examiner indicates that Lerch DE discloses “*hook elements (54/72) with an inclined/steep flank*” (final Office Action, page 2). Reference numeral 54 of Lerch DE denotes a peg element on which the wire 28 is wound around (Para. 0095). Reference numeral 72 of Lerch is a clamping seat which is formed as a fixing recess into which the wire 28 can be clamped (Para. 0097). It is evident from Figure 2 of Lerch DE that neither the peg element 54 nor the clamping recess 72 has an inclined steep flank and neither acts as any type of hook element.

The Examiner also states that Lerch DE discloses “*a dimension of the tension band is greater than another (thereby covering the width is greater than the height)*” (final Office Action, page 2). Lerch DE does not disclose or remotely suggest that, at least in an area of the at least one tension band where the penetration occurs, a width of the at least one tension band is at least five times greater than the height of the at least one tension band, as claimed by Applicants. In contrast, in Lerch DE, the thread or wire 28 appears to be a length of circular material of constant diameter (or a material where the width is substantially equal to the height). The Examiner’s overly broad reading of Lerch DE ignores the fact that since Applicants’ tension band has a height and width dimension, it inherently has a length dimension, as would be appreciated by those of ordinary skill in the art.

As acknowledged by the Examiner, Lerch DE does not disclose or remotely suggest a hook element that can penetrate completely through the tension band for fixing the tension band relative to an outer abutment element, as claimed by Applicants. The Examiner asserts that Lerch US teaches “*It would have been obvious to one of ordinary skill in the art at the time of the invention to include the hook members as taught by Lerch (‘631) to the device of Lerch et al (‘359) in order to help grip the bone to which the elements are attached.*” (final Office Action, page 3). The Examiner is correct in that one skilled in the art would possibly have modified the bearing element 20 of Lerch DE with the teeth 223 of Lerch US to enable the fixing device to better grip the bone. However, Applicants respectfully submit that one skilled in the art would not have modified Lerch DE so as to provide the teeth 223 on the bearing element 20 which completely penetrate though the wire 28. There is simply no disclosure or suggestion that the teeth 223 of Lerch US are used to fix any type of tension band. In fact, the teeth 223 of Lerch US do not serve to fix the two disks 21 and 22 together. Rather, in Lerch

US, the two disks 21 and 22 are fixed in position via a shaft 112 which passes through the center of the disks 21 and 22 (see, e.g., Col. 2, lines 54-66; Col. 3, lines 32-36).

It is also noted that Applicants claim 1 specifies that the at least one tension band has a first free end and a second free end located above an outer surface of the outer abutment element, and that the one or more hook elements are associated with each of the first and second free ends for fixing the at least one tension band relative to the outer abutment element, with the one or more hook elements formed on the outer abutment element. Thus, with Applicants' claimed invention, the hook elements are disposed on the outer surface of the outer abutment element. In contrast, Lerch US only discloses teeth 223 formed on an inner surface of outer disk 22 for gripping bone tissue. There is no disclosure or suggestion in Lerch US of teeth disposed on an outer surface of the disk 22 for penetrating completely through a tension band. It is respectfully submitted that one of ordinary skill in the art would have understood the purpose and function of teeth 223 of Lerch US to be to prevent transverse movement of the bone plug relative to the rest of the cranium, not to penetrate completely through a band used to secure the two disks 21, 22 together.

There is no motivation for combining Lerch DE with Lerch US as indicated by the Examiner. Lerch DE and Lerch US share a common inventor, Karl-Dieter Lerch. Applicants respectfully submit that if it were obvious to combine these two references, such a combination would have been disclosed by the common inventor. Neither Lerch DE nor Lerch US reference any combination of the respective embodiments. Further, it is respectfully submitted that, even if one skilled in the art were somehow motivated to combine Lerch DE with Lerch US, one of ordinary skill in the art would more readily have modified the embodiments of Figures 4-16 of Lerch DE with features of Lerch US (rather than the Figure 1 embodiment of Lerch DE as indicated by the Examiner) to provide a fixing device having disks secured together with some type of a rigid coupling element passing through the center of the disks and where the disks have teeth for gripping the bone sections to be fixed. Such a device would not include an elastically bendable tension band which is fixed relative to the outer abutment element by hook elements that penetrate completely through it, as claimed by Applicants.

It is respectfully submitted that, even in the event that one skilled in the art were somehow motivated to modify the Figure 1 embodiment of Lerch DE with the teeth 223 of Lerch US, one skilled in the art would not have arrived at Applicants' claimed invention. Instead, one skilled in the

art would have modified the inner and outer bearing elements 18 and 20 with teeth for gripping the bone tissue. One skilled in the art would not have modified Lerch DE with teeth for penetrating the wire 28 since the securing means of Lerch DE appears to work fine for its intended purpose and there is no teaching in either reference of using teeth for securing a wire.

Further, Lerch US does not cure the deficiencies of Lerch DE noted above. In particular, neither Lerch DE nor Lerch US discloses an elastically bendable tension band; first and second free ends of a tension band disposed above an outer surface of an outer abutment element and secured thereto via hook elements which penetrate completely through the free ends of the tension band; a height of one or more hook elements being greater than a height of the at least one tension band; and a tension band having a width that is at least five times greater than its height, at least in the area where the hook element(s) penetrate the tension band. Accordingly, the combination of Lerch DE and Lerch US would not lead to Applicants' claimed invention, as such a combination does not disclose or suggest at least the foregoing elements claimed by Applicants.

Discussion of Rejection Based on Lerch DE in View of Golds

Independent claim 1 is rejected as being unpatentable over Lerch DE in view of Golds. The deficiencies of Lerch DE are discussed in detail above. Golds does not cure these noted deficiencies.

As discussed above, the Examiner acknowledges that Lerch DE does not disclose a hook element which completely penetrates through a tension band. In the Advisory Action, the Examiner indicates that Golds is relied on merely as a way to hold a flexible member. The disclosure of Golds is discussed in detail in Applicants' Response. Contrary to the Examiner's assertions, Golds simply does not disclose or remotely suggest hook elements that completely penetrate through free ends of a flexible tension band. Rather, Golds teaches away from complete penetration of the teeth 40 through the strap 12, as when the clamp 18 of Golds is rotated into the closed position engaging the strap 12, the teeth 40 are angled so as to permit the strap to pass in a tightening direction to permit further tensioning of the strap 12, while preventing the strap from passing in an opposite loosening direction. If the teeth 40 of Golds penetrated completely through the strap, movement of the strap 12 would be prevented in each direction when the clamp 18 is rotated into the closed position.

With Applicants' claimed invention, a height of the one or more hook elements is greater than a height of the at least one tension band, which enables the hook element(s) to penetrate completely through the tension band. It is apparent from Figure 4 of Golds that the height of teeth 40 is not greater than a height of the strap 12 and thus do not penetrate completely through the strap 12.

Due to the disparate designs of Lerch DE and Golds, one skilled in the art would not be motivated to combine their teachings as indicated by the Examiner. For example, when securing adjacently arranged bone plates with a connecting element as in Lerch DE, there is no room for a rotating clamp mechanism 18 of the type used in Golds to be disposed between the two bearing elements 18 and 20, even if the device of Golds were resized as suggested by the Examiner in the Advisory Action. Such an arrangement would create an unwanted gap between adjacent bone plates being fixed together. Also, extensive modification would be required to make the clamp 18 of Golds work to secure the wire 28 in the device of Lerch DE, as discussed in detail in Applicants' Response. Even in the event one skilled in the art was somehow motivated to modify the device of Lerch DE with the securing means of Golds as suggested by the Examiner, such a device would be unworkable for the purpose intended in Lerch DE and be far removed from Applicants' claimed invention.

Withdrawal of the rejections under 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

Reconsideration and allowance of this application at a Pre-Appeal Brief Review conference is respectfully requested. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,



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